



DUNNAGE BAGS

POLYPROPYLENE & KRAFT PAPER
ISO, DOMCON & REEFER CONTAINERS
DRY VAN & REEFER VAN TRAILERS

POLYPROPYLENE & PAPER DUNNAGE BAGS CARGO HANDLING & PROTECTION SOLUTIONS



A SUPERIOR SOLUTION
TO PREVENT CARGO
DAMAGE FROM
LOAD SHIFTING



GENERAL APPLICATIONS

BUFFERS USA® dunnage bags are the convenient way to protect your goods from being damaged during shipping by preventing load shifting when transporting boxed, palletized or different/odd-shaped products/packages.

Dunnage bags are also a less expensive means of blocking and bracing than the use of lumber and nails or expensive rubber air bags. BUFFERS USA offers both polypropylene and paper dunnage bags.

REUSABLE POLYPROPYLENE DUNNAGE BAGS

Comprehensive Product Range: 5 different strength levels and 29 different sizes per level provide 145 different standard bag options. Custom sizes to your specifications are also available.

Safe: Bags are produced under ISO 9001 & 14001 standards and certified by the Association of American Railroads (AAR) and the Railway Association of Canada (RAC).
100% leakproof, tested at factory.

Cost Effective: Levels 1, 2 and 3 (non-railroad) are reusable. Ability to reuse reduces cost for second use by 50%.

Lightweight & Waterproof: Easy to handle, light in weight, take up less space, and are resistant to moisture and water ingress.

Easier To Install Than Vinyl Bag: Rigidity of polypropylene bag when flat and empty enables faster, easier install in tight or hard-to-reach places.

Takes Shape To Odd Configurations: Bags are flexible enough to fill every shape and odd space between cargo.

Can Fill a Larger Void Than Paper Bags: Polypropylene dunnage bags can fill a space up to 18", much larger compared to the paper dunnage bags, which can only fill a void up to 14".

Durable Construction: Strong, woven polypropylene outer fabric layer and airtight polyethylene inner bladder with an inflating and deflating valve.

Environmentally Friendly: 100% recyclable virgin materials.

Easy To Use: Dunnage bags can be installed in a few minutes using an air hose and inflator tip. After use, deflate the bag by simply unscrewing the valve. No need to puncture to deflate.

KRAFT PAPER DUNNAGE BAGS

Safety: Provides same protection against load shifting.

Cost-Effective: Less expensive than polypropylene bags.

Practical: One-time use, suitable for export shipments.

Sturdy Construction: Made from multiple layers (2-, 4-, 6- or 8-ply) of high-strength kraft paper with an inflatable internal polyethylene bladder.

Note: Not suitable for wet or moist cargo.



ORDERING INFORMATION

1) Choose Your Strength Based On Mode Of Transport:

Polypropylene Level	Paper Ply	Mode of Transport	Strength
Level 1 (L1)	2-ply	Truck	Max: 3 psi (0.21 bar or kg/cm ²)
Level 2 (L2)	4-ply	Intermodal container	Max: 4 psi (0.28 bar or kg/cm ²)
Level 3 (L3)	6-ply	Normal rail use	Max: 6 psi (0.41 bar or kg/cm ²)
Level 4 (L4)	8-ply	Over 160,000 lbs. in rail car	Max: 7 psi (0.48 bar or kg/cm ²)
Level 5 (L5)		Over 200,000 lbs. load in rail car (High Cube car)	Max: 8 psi (0.55 bar or kg/cm ²)

2) **Determine Size:** Specify bag size(s) at about 90% of width and length of each void space.

3) **Select Bag From The Following Charts** Based On Above Requirements/Measurements:

REUSABLE POLYPROPYLENE DUNNAGE BAGS

Sizes Available For Levels 1, 2, 3, 4 and 5 (145 combinations of level/size models):

30" WIDE	36" WIDE	46.5" WIDE	57.5" WIDE
30" x 30" (726 mm x 726 mm)	36" x 36" (914 mm x 914 mm)	46.5" x 48" (1,181 mm x 1,219 mm)	57.5" x 96" (1,461 mm x 2,438 mm)
30" x 48" (726 mm x 1,219 mm)	36" x 48" (914 mm x 1,219 mm)	46.5" x 60" (1,181 mm x 1,524 mm)	57.5" x 108" (1,461 mm x 2,743 mm)
30" x 60" (712 mm x 1,524 mm)	36" x 60" (914 mm x 1,524 mm)	46.5" x 72" (1,181 mm x 1,828 mm)	57.5" x 120" (1,461 mm x 3,048 mm)
30" x 72" (726 mm x 1,828 mm)	36" x 66" (914 mm x 1,676 mm)	46.5" x 84" (1,181 mm x 2,134 mm)	
30" x 84" (726 mm x 2,134 mm)	36" x 72" (914 mm x 1,828 mm)	46.5" x 96" (1,181 mm x 2,438 mm)	
30" x 96" (726 mm x 2,438 mm)	36" x 84" (914 mm x 2,134 mm)	46.5" x 102" (1,181 mm x 2,591 mm)	
30" x 102" (726 mm x 2,591 mm)	36" x 96" (914 mm x 2,438 mm)	46.5" x 108" (1,181 mm x 2,743 mm)	
30" x 108" (726 mm x 2,743 mm)	36" x 102" (914 mm x 2,591 mm)	46.5" x 120" (1,181 mm x 3,048 mm)	
	36" x 108" (914 mm x 2,743 mm)	46.5" x 132" (1,181 mm x 3,353 mm)	

KRAFT PAPER DUNNAGE BAGS

All sizes available in 2-, 4-, 6- and 8-ply (100 combinations of ply/size models):

WIDTHS	LENGTHS					
20" (500 mm)	24" (600 mm)					
32" (800 mm)	48" (1,200 mm)	63" (1,600 mm)	95" (2,400 mm)	102" (2,600 mm)		
36" (900 mm)	40" (1,000 mm)	48" (1,200 mm)	60" (1,500 mm)	71" (1,800 mm)	87" (2,200 mm)	95" (2,400 mm)
40" (1,000 mm)	48" (1,200 mm)	60" (1,500 mm)	71" (1,800 mm)	87" (2,200 mm)	95" (2,400 mm)	
48" (1,200 mm)	71" (1,800 mm)	87" (2,200 mm)	95" (2,400 mm)	102" (2,600 mm)		

KRAFT PAPER-CLAD POLYPROPYLENE DUNNAGE BAGS

EXTRA STRENGTH AT A COST-EFFECTIVE PRICE

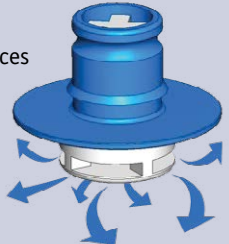


BUFFERS USA now offers a unique **KRAFT PAPER-CLAD POLYPROPYLENE** paper dunnage bag that combines the strength of polypropylene with the convenience and cost effectiveness of paper dunnage bags. **Our complete line of paper and polypropylene dunnage bags** are the convenient way to protect your goods from being damaged during shipping by preventing load shifting when transporting boxed, palletized or different/odd shaped products/packaging. Dunnage bags are also a less expensive means of blocking and bracing than the use of lumber and nails or expensive rubber air bags.

BUFFERS USA EXCLUSIVE! ONE-PIECE VALVE DESIGN PROVIDES FAST, SAFE & CONVENIENT INFLATION



- Convenient, sturdy finger grip
- Attached dust cap
- Quick-connect lock-ring style tip for inflation/deflation
- Single O-ring design reduces risk of leakage
- Integrated air dispenser/diverter



INDUSTRY-LEADING FEATURES & BENEFITS:

- Cost-Effective:**
Less expensive than 100% polypropylene bags.
Designed specifically for Levels 1 and 2 (L1 & L2).
- Practical:**
One-time use; suitable for truck and intermodal export shipments.
- Takes Shape To Odd Configurations:**
Bags are flexible enough to fill every shape and odd space between cargo.
- Easy To Use:**
Dunnage bags can be installed in a few minutes using an air hose and inflator tip. After use, simply insert the quick-connect lock-ring tip to deflate; there's no need to puncture the bag.
- Easier To Install Than Vinyl Bag:**
Rigidity of bag when flat and empty enables faster, easier installation in tight or hard-to-reach places.
- Environmentally Friendly:**
100% recyclable virgin materials.
- NOTE:** Not suitable for wet or moist cargo.

FAST, SAFE & EASY INFLATION



Attach quick-connect lock-ring tip to filler valve.



Use pressure gauge when filling.
Use tool model 2910-6983-HD-KIT.

ORDERING INFORMATION

1) Choose Your Strength Based On Mode Of Transport:

Strength Level	Cladding Thickness	Bladder Thickness	Mode of Transport	Max Fill Pressure	Min. Burst Pressure
Level 1 (L1)	0.20 mm	0.07 mm	Truck	3 psi (0.21 bar / kg/cm ²)	5.8 psi (0.4 bar / kg/cm ²)
Level 2 (L2)	0.25 mm	0.10 mm	Intermodal Container	4 psi (0.28 bar / kg/cm ²)	8.7 psi (0.6 bar / kg/cm ²)

2) Determine Size: Specify bag size at about 90% of the width and length of the void space area.

Note: Not recommended for void depth over 15" (380 mm).

3) Select Available Bag Size(s):

Widths	Lengths					
20" (500 mm)	24" (600 mm) 2910-L1-2024-P					
32" (800 mm)	48" (1,200 mm) 2910-L1-3248-P* 2910-L2-3248-P*	63" (1,600 mm) 2910-L1-3263-P* 2910-L2-3263-P*	95" (2,400 mm) 2910-L1-3295-P* 2910-L2-3295-P*	102" (2,600 mm) 2910-L1-32102-P* 2910-L2-32102-P*		
36" (900 mm)	40" (1,000 mm) 2910-L1-3640-P*	48" (1,200 mm) 2910-L1-3648-P* 2910-L2-3648-P*	60" (1,500 mm) 2910-L1-3660-P* 2910-L2-3660-P*	71" (1,800 mm) 2910-L1-3671-P* 2910-L2-3671-P*	86" (2,180 mm) 2910-L1-3686-P* 2910-L2-3686-P*	95" (2,400 mm) 2910-L1-3695-P* 2910-L2-3695-P*
40" (1,000 mm)	48" (1,200 mm) 2910-L1-4048-P* 2910-L2-4048-P*	60" (1,500 mm) 2910-L1-4060-P* 2910-L2-4060-P*	71" (1,800 mm) 2910-L1-4071-P* 2910-L2-4071-P*	87" (2,200 mm) 2910-L1-4087-P* 2910-L2-4087-P*	95" (2,400 mm) 2910-L1-4095-P* 2910-L2-4095-P*	
48" (1,200 mm)	71" (1,800 mm) 2910-L1-4871-P* 2910-L2-4871-P*	87" (2,200 mm) 2910-L1-4887-P* 2910-L2-4887-P*	95" (2,400 mm) 2910-L1-4895-P* 2910-L2-4895-P*	102" (2,600 mm) 2910-L1-48102-P* 2910-L2-48102-P*		

* SPECIAL ORDER ONLY